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LEAF SPOT OF PELLIONIA AND PILEA SPP. CAUSED BY A PATHOVAR OF XANTHOMONAS CAMPESTRIS

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Two species of Pellionia, P. daveauana (Godefr.) N. E. Br. (trailing watermelon begonia) and P. pulchra N. E. Br. (satin pellionia), are used as ground covers in groupings with other foliage plants, as hanging plants, and in terrariums and dish gardens (1). Pilea cadierei Cagn. & Guill. (aluminum plant) and P. serpyllacea (Poir.) Wedd. (creeping charlie) are used as desk and table plants or in dish gardens, hanging baskets, and terrariums, and as ground covers in combination plantings (1). Over the past few years, a serious leaf spot disease has been noted on these four species of the family Urticaceae. A yellow bacterium was consistently isolated from each plant and proved to be the cause of the spots. It was identified as Xanthomonas campestris (2,3).

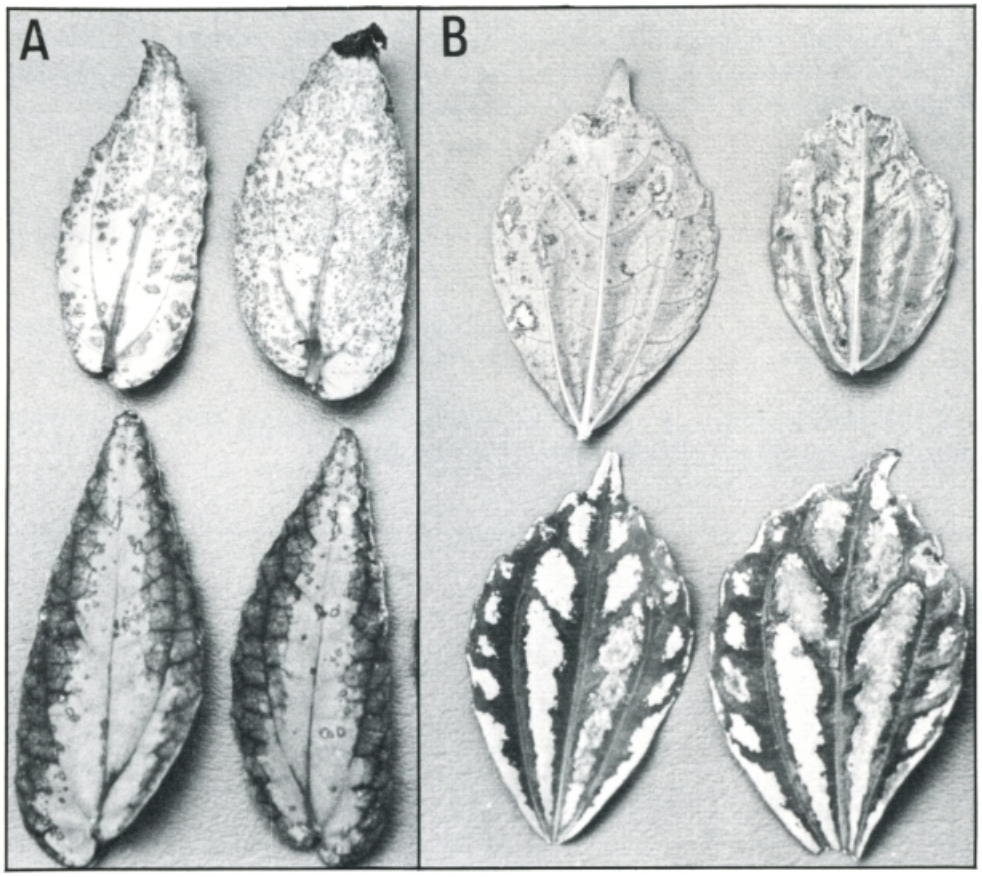

Fig. 1. Leaf spot of Pellionia daveauana and Pilea cadierei caused by Xanthomonas campestris. A) Lesions on upper and lower leaf surfaces of P. daveauana. B) Lesions on upper and lower leaf surfaces of P. cadierei.

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SYMPTOMS

On trailing watermelon begonia, the leaf spots are circular, tan and water-soaked on the undersurface (Fig. lA). Lesions on satin pellionia are initially green to yellow, later becoming irregularly shaped, tan, and dry. Water-soaking around the margins of young lesions is most apparent on the lower leaf surface. Aluminum plants develop dry, tan, irregularly-shaped lesions primarily within the silver area of the variegated leaves (Fig. 1B). On advanced infections, the necrotic tissues fall out, leaving ragged holes in the leaf blades. On creeping charlie, the spots are dark-gray to black and angular with a bright yellow halo (2,3).

CONTROL

No effective bactericide is currently registered for use on these hosts to control bacterial leaf spot. To minimize disease development, it is best to use disease-free stock, keep the foliage as dry as possible, and provide good air circulation through the plant canopy. Roguing of any diseased leaves or plants may be helpful in preventing spread.

SURVEY AND DETECTION

Look for tan, dry spots on leaves of trailing watermelon begonia, satin pellionia, and aluminum plant (in silver area). Creeping charlie shows dark, dry angular lesions. The disease is most commonly found on aluminum plant.

LITERATURE CITED

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